

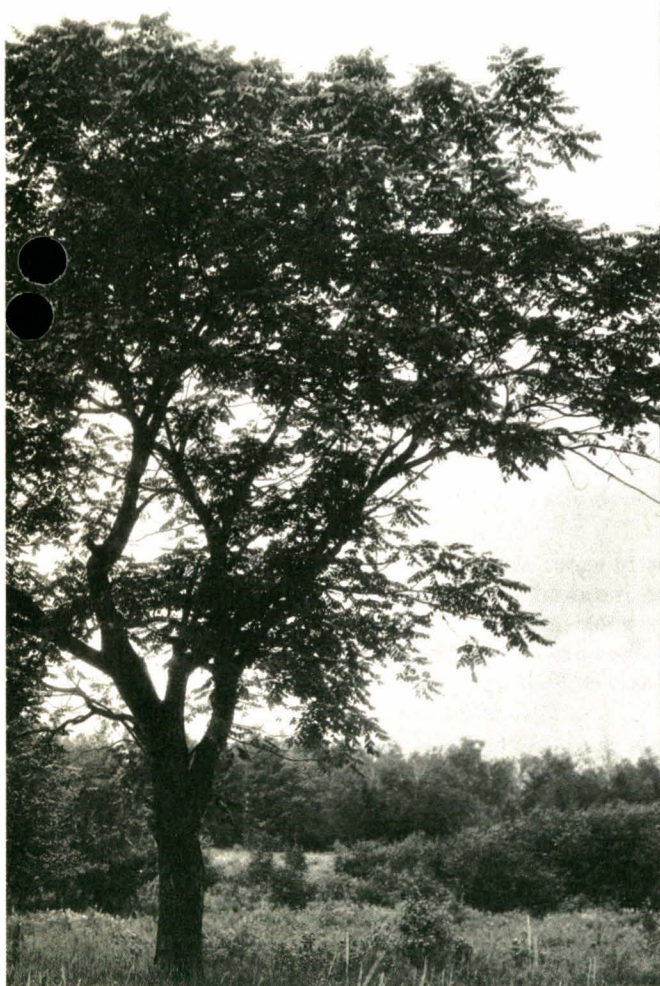
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BUTTERNUT

... an American wood

Butternut, a small- to medium-sized tree, is a native of northeastern United States. The wood is moderately light in weight, is generally straight grained, and is easy to work. It is capable of taking a rich, lustrous finish. Butternuts have a pleasant flavor that is popular with many people. The nuts are gathered for homemade candy.



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BUTTERNUT

(*Juglans cinerea* L.)

James G. Schroeder¹

DISTRIBUTION

The natural range of butternut, a hardwood, extends throughout the eastern half of the United States from Tennessee and western North Carolina northward to southern Ontario and Quebec (fig. 1). The species is scattered sparsely throughout this region. Butternut never grows in pure stands but is normally seen around the edges of forest stands and in the open. It is commonly found in association with many other hardwood species such as black cherry, basswood, oak, black walnut, ash, maple, elm, and hemlock.

DESCRIPTION AND GROWTH

Butternut is generally a small- to medium-sized tree, reaching 40 to 60 feet in height and 12 to 24 inches in diameter breast height (d.b.h.). However, under favorable forest conditions, occasional specimens may grow to 100 feet with a d.b.h. approaching 3 feet. It grows fast, is intolerant to shade, and normally does not live longer than 75 years.

Butternut will grow under a wide range of soil and climatic conditions. It grows best, however, on rich, deep, moist soil, a condition common along streams. It also does well on well-drained gravelly soil. Butternut grows faster on dry, rocky soil than its closest relative, black walnut (*Juglans nigra* L.).

Open-grown butternut has a short trunk which divides into spreading branches comparatively close to the ground. Forest-grown trees have better form, but still have relatively short, clear boles (fig. 2), short branches, and broad crowns.

The fruit of butternut, (fig. 3) which matures in

September and October, is an oblong-ovoid nut that has a very hard shell about 2½ inches long. Nuts may occur singly or in clusters of two to five. The sweet, oily kernel of the nut has given the tree its common name. The nuts are a favorite food of squirrels. Many of the butternut trees in the forest have grown from nuts which squirrels have buried.

Leaves are compound and usually about 15 to 30 inches in length. About 11 to 17 small leaflets are usually attached to the leaf stem (fig. 4).

Butternut has few serious insect enemies, but is one of the many hosts for *Nectria* which causes cankers. A widespread and serious disease of butternut is canker dieback (*Melanconis juglandis*). This fungus, which progressively kills the branches of the tree, has been identified throughout the range of butternut. A second disease is the brooming or bunch disease which is believed to be caused by a virus. This disease, which also attacks black walnut, causes sucker growth and results in trees of little value for nut production.

COMMON NAMES

Butternut is the name most commonly used for this species, but it is also known as white walnut or oilnut.

SUPPLY

No data are available from which to estimate reliably the stand of butternut of sawtimber size.

PRODUCTION

The maximum cut of butternut lumber reported in any one year was nearly 2 billion board feet in 1913. Production has dropped considerably since that time. Production in 1941 was about 920,000 board feet. More recent estimates are not available, but the 1941 cut probably has not been exceeded.

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NOTE: This publication supersedes unnumbered publication, *Butternut*.

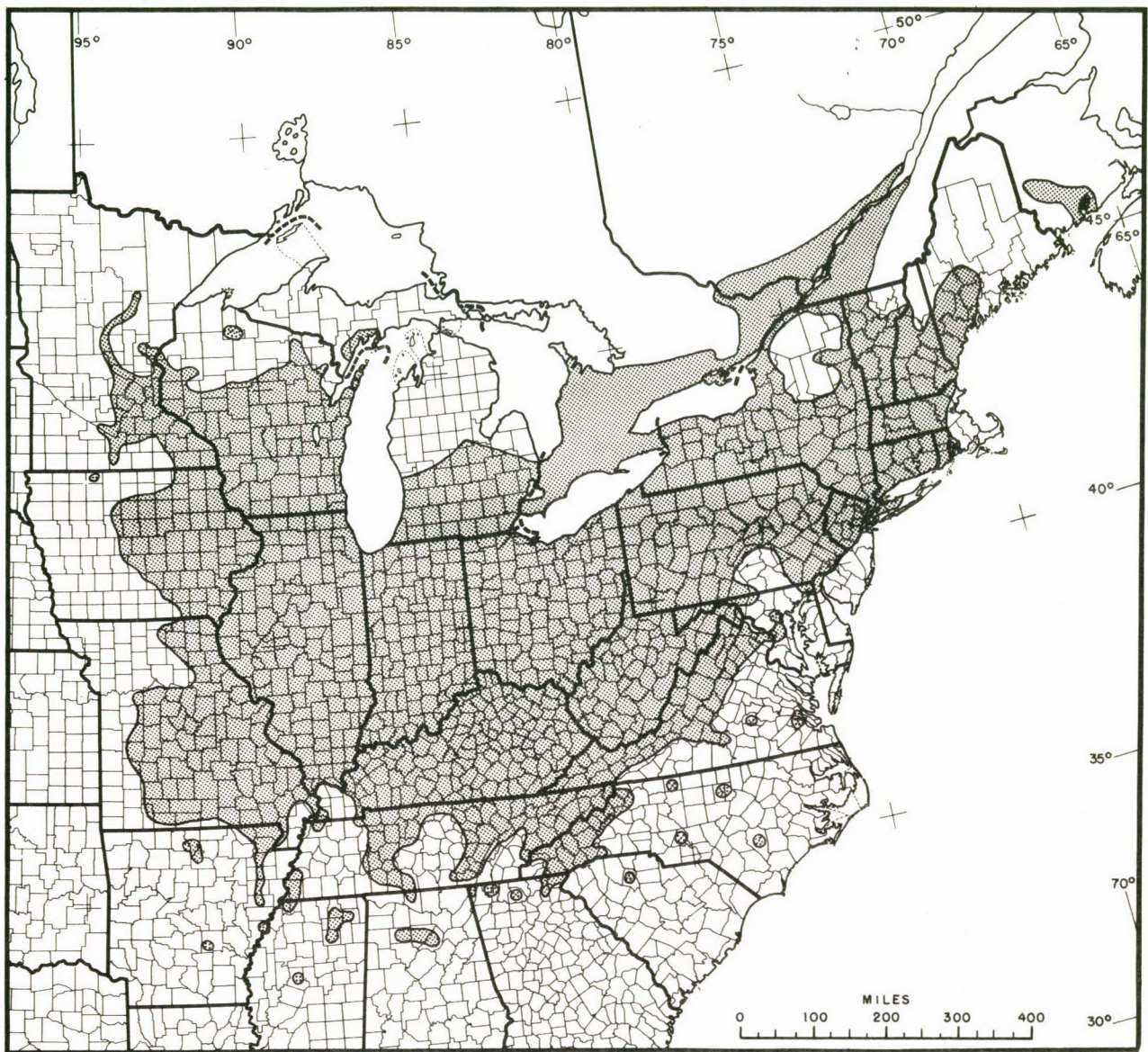


Figure 1.—The natural range of butternut.

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Cover: Tree, F-261280; wood grain, M117585.



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Figure 2.—Straight holes of forest-grown butternut.

West Virginia, Wisconsin, Indiana, and Tennessee have been the leading states in the production of butternut lumber. Mills from West Virginia alone shipped approximately 250,000 board feet of butternut lumber to North Carolina furniture plants in 1963.

CHARACTERISTICS AND PROPERTIES

The heartwood of butternut is light chestnut brown in some places tinged with red. It darkens with exposure to the atmosphere. The narrow sapwood is white to light brown and is rarely more than 1 inch wide. The annual growth rings are distinct: there

is a marked difference between the size of the pores in the summerwood and in the adjoining springwood of the following year.

Butternut wood is light weight and is weak in bending and in end compression. It lacks stiffness, and while it is relatively soft, it ranks rather high in shock resistance. The wood is generally straight



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Figure 3.—Butternut fruit.



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Figure 4.—Butternut leaf and fruit.

grained and works easily with tools. It resembles black walnut in texture, but is lighter in color and considerably lighter in weight. Like black walnut, it is capable of taking a rich, lustrous finish.

Shrinkage is little. Under conditions favorable to decay, butternut is classed with birch, beech, and maple in durability as only slightly resistant or non-resistant.

The wood has no characteristic odor or taste.

PRINCIPAL USES

Butternut lumber is used primarily for making furniture. It is also used for boxes, crates, and millwork. Virtually all the butternut veneer produced goes into the manufacture of furniture. In 1960 the total veneer production was about 4 billion square feet. However, in 1965,² the Fine Hardwoods Association reported that member producers shipped almost 14 billion square feet of butternut face veneer.

Butternuts are gathered for home use, but there is no record of the volume. The flavor of butternuts is preferred by many people to that of black walnut, especially in candy. But butternuts are less important commercially than black walnuts.

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² In correspondence, 1966.